

## **SYSTEM AND METHOD FOR A TIME-SCALABLE PRIORITY-BASED SCHEDULER**

### **ABSTRACT**

A system and method for a time-scalable priority-based scheduler. A flexible scheduling algorithm utilizing variable scheduling durations enables better system capacity utilization. A rate request is transmitted if data arrives in a buffer, data in the buffer exceeds a buffer depth, and sufficient power exists to transmit at the rate requested. A rate assignment responsive to the rate request indicates a scheduled duration and a scheduled rate applicable for the scheduled duration. The scheduled duration is less than or equal to a scheduling period. The scheduling period is an interval of time after which a scheduler makes a scheduling decision. The scheduling period is variable and the scheduled duration is variable.